

Notice of Allowability

Application No.

10/799,510

Applicant(s)

KOH ET AL.

Examiner

Jason C. Olson

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/09/2007.
2. ☒ The allowed claim(s) is/are 1-8, 10-14, 17-22, 24, 30, 32 and 34-36, renumbered 1-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Randy McCarthy on 09/11/07.

The application has been amended as follows:

Claim 1: in line 1, deleted, "an actuator configured to support" and inserted, -an actuator which supports-; in line 2, deleted, "a position detector configured to determine" and inserted, -a position detector which determines-; in lines 4-5, deleted, "a voice coil configured to provide" and inserted, -a voice coil which provides-; in line 6, deleted, "position detector is configured to detect" and inserted, -position detector detects-.

Claim 3 in line 1, deleted, "a latch configured to urge the" and inserted, -a latch which urges the-.

Claim 4, in lines 1-2, deleted, "crash stop configured to limit" and inserted, -crash stop which limits-.

Claim 6, in line 2, deleted, "a processor configured to receive voltage measurements" and inserted, -a processor which operates to receive voltage measurements-.

Claim 7, in line 2, deleted, "a programmable processor configured to spin-up the disc" and inserted, -a programmable processor which operates to spin-up the disc-.

Claim 10, lines 2-3, deleted, “the voice coil and configures to sample” and inserted, -the voice coil and samples-.

The following is an examiner’s statement of reasons for allowance: Claims 1-8, 10-14, 17-22, 24, 30, 32, and 34-36 are allowed as the prior art, in particular Hirano et al. (US 6,754,027), Teng et al. (US 6,876,510) and Heydt et al. (US 6,876,510), does not teach or suggest the applicant’s invention. The amended claim language and the applicant’s remarks in response to the Office Action (mailed on 02/09/2007) distinguish the application’s invention over the references that accompanied the Office Action. Claims 1, 11, and 34 teach a method and apparatus for a data storage device. Regarding claim 1, the distinguishing elements of the claim teaches a position detector which determines a former stationary position of the transducer based on a latter motion pattern of the actuator obtained from application of a current profile of controlled variable magnitude to the actuator, wherein the position detector detects the latter motion pattern after spin-up of a disc, and wherein the former stationary position comprises a position of the transducer prior to said spin-up. Regarding claim 11, the distinguishing elements of the claim teaches detecting a motion pattern of the actuator and a back-electromotive force across the voice coil in response to said movement of the transducer and generating a digital indication of a position of the transducer prior to the spinning up step in relation to the actuator motion pattern and the back-electromotive force. Regarding claim 34, the distinguishing elements of the claim teaches a position detector which determines a former position of the transducer in relation to a latter motion pattern of the actuator and in relation to a back-electromotive force across a voice coil of the actuator, wherein the former position of the

transducer comprises a position prior to spin-up of the disc and wherein the latter motion pattern and the back-electromotive force are obtained after said spin-up in response to application of a current profile of controlled variable magnitude to the voice coil.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C. Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571)272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/JCO/

/William Korzuch/

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